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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,847	12/09/2003	Arnold H. Bramnick	BOC9-2003-0037 (406)	5226
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EXAMINER				
VETTER, DANIEL				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10730,847

**Applicant(s)**

BRAMNICK ET AL.

**Examiner**

DANIEL P. VETTER

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,7,10,12,16,18,20 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,7,10,12,16,18,20 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/888)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1, 3-10, 12-18, and 20-25 were previously pending in this application. Claims 1, 10, and 18 were amending, and claims 4-6, 8, 9, 13-15, 17, 21-23, and 25 were canceled in the reply filed June 4, 2008. Claims 1, 3, 7, 10, 12, 16, 18, 20, and 24 are currently pending in this application.

### ***Response to Arguments***

2. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that Yu is merely directed to calculations based upon route, while applicant's invention describes calculating costs of canceling flights. Remarks, page 9. Applicant also asserts that, with regard to Yu, "[t]he only passage that mentions cost is col. 8, lines 17-19." Remarks, page 9. Examiner respectfully disagrees and notes that Yu's method indeed calculates the cost and revenue impact of canceling certain flights, and that the disclosure is replete with references to both "cost" and "revenue" aside from merely in col. 8, lines 17-19. For example, the Summary notes in its first sentence that in response to flight disruptions the decision support system evaluates "flight revenue and the costs related to flight operations, flight cancellations, flight delay minutes, flight swaps, and displaced passengers, to assist operations management in selecting the optimal solution best conforming to operational constraints and user requirements." Yu, col. 4, lines 40-44 (emphasis added). The cost and revenue include those related to passenger load. Yu, col. 18, line 61 - col. 19, line 2. The solutions generated comprise flight cancellations. Yu, col. 9, lines 29-30. The preferred solution is one that minimizes costs and maximizes revenue to the airline. Yu, col. 19, lines 11-16. Applicant's claimed invention, characterized in the Remarks, page 9, as "a method to calculate, in real time and using real numbers, the cost of canceling a particular flight taking passenger, cargo, and crew costs into account," reads on this disclosure and accordingly the rejections are maintained.

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3. In response to applicant's argument that Lanigan is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both Yu and Lanigan are classed/searched in 705/8, and both concern optimizing airline operations. While Lanigan is not directly concerned with flight cancellations, it is merely relied upon to demonstrate that time-critical cargo value is an old and well-known type of airline revenue portion that would be obvious to include in Yu's revenue calculations.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 3, 7, 10, 12, 16, 18, 20, and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

6. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As amended, claims 1, 10, and 18 are directed to an invention used "for determining flight cancellation in real time." However, the disclosure only supports that financial data is provided in real time (§¶ 0004, 0028). There is no indication in the disclosure that the inventor had possession of an invention that was carried out in real time in its entirety, or even that the final step of determining the actual cancellations is carried out in real time, only that the provision of financial data is performed in real time. Accordingly, this aspect of the invention is not supported. Dependent claims inherit this deficiency and are rejected for the same reason.

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7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 3, 7, 10, 12, 16, 18, 20, and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. As amended claim 1 recites that the flight cancellation candidates are determined "using flight operations data including equipment, crew, plane availability, and other flight operations information." Independent claims 10 and 18 contain similar recitations. It appears that applicant's intent is for the scope of the claim to be directed to all of these data types required inclusively as one singular embodiment. However, the scope of the claim is vague because it the metes and bounds of what constitutes "other flight operations information" is not clear in light of the Specification. Due to this indefiniteness, the public would not properly be apprised as to what would constitute infringement of the claimed invention. Dependent claims inherit the above deficiencies and, as such, are rejected for the same reasons.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 3, 7, 10, 12, 16, 18, 20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, et al., U.S. Pat. No. 6,314,361 (Reference A of the PTO-892 part of paper no. 20070319) in view of Lanigan, Sr., U.S. Pat. Pub. No. 2003/0061085 (Reference A of the PTO-892 part of paper no. 20080219).

12. As per claims 1, 10, and 18, Yu teaches a method, system, and machine readable storage comprising: a means for and detecting a flight cancellation condition (col. 8, lines 51-55); a means for and determining at least two flight cancellation candidates using flight operations data including equipment, crew, plane availability, and other flight operations information (col. 9, lines 17-28; col. 8, lines 24-26); a means for and obtaining in real time flight financial data from at least one flight financial data store for at least two flight cancellation candidates (col. 8, lines 17-19, 29-31; col. 4, line 33); a means for and processing said flight financial data for said flight cancellation candidates to determine for each flight cancellation candidate an amount of revenue lost by canceling a flight corresponding to a particular flight cancellation candidate (col. 8, lines 22-23, 55-56; col. 9, lines 20-28; col. 10, lines 6-14), wherein amounts of revenue include values for coupons held by passengers assigned to each flight corresponding to the particular flight cancellation candidate (col. 18, line 61 - col. 19, line 2); a means for and presenting for each flight cancellation candidate the amount of revenue lost determined based upon the financial data for said flight cancellation candidates (col. 8, lines 22-23, 56-57; col. 9, lines 29-31); and means for and selecting from among said at least two flight cancellation candidates a flight cancellation candidate and canceling the flight corresponding to the selected flight cancellation candidate if the amount of revenue lost by canceling the corresponding flight is less than the revenue lost by canceling any other flight corresponding to a non-selected flight cancellation candidate (col. 10, lines 1-14; col. 11, lines 53-55).

Yu does not explicitly teach that amounts of revenue include values for time-critical cargo; which is taught by Lanigan (§ 0038). It would have been prima facie obvious to one having ordinary skill in the art at the time of invention to include values for time-critical cargo as taught by Lanigan into the broadly disclosed flight revenue values of Yu because this is merely a combination of old elements, and in the combination each element would have performed the same function it did separately (i.e., identify a portion of total flight revenue). One of ordinary skill in the art would also

have recognized that the results of the combination were predictable and could be implemented through routine engineering.

13. As per claims 3, 12, and 20, Yu in view of Lanigan teaches the limitations of claims 1, 10, and 18 as described above. Yu further teaches said flight financial data comprises a value of at least one selected from the group consisting of cargo, United States Postal Service mail, passenger ticket, and fuel requirements data (col. 9, lines 13-16).

14. As per claims 7, 16, and 24, Yu in view of Lanigan teaches the limitations of claims 1, 10, and 18 as described above. Yu further teaches said flight financial data store comprises at least one selected from the group consisting of cargo, crew, reservations, and flight operations information (col. 8, lines 40-42).

### ***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DANIEL P. VETTER** whose telephone number is (571)270-1366. The examiner can normally be reached on Monday through Thursday from 8am to 6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on (571) 272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN W HAYES/

Supervisory Patent Examiner, Art Unit 3628